NRC FORM 591M PART 3 (10-2003)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

Docket File Information
SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE	2. NRC/REGIONAL OFFICE
Cardinal Health REPORT NUMBER(S) **2005-004**	**US Nuclear Regulatory Commission Region IV**

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
030-33224	**04-26507-01MD**	**December 15-29, 2004**

6. INSPECTION PROCEDURES	7. INSPECTION FOCUS AREAS
IP 87127	**03.01-.07**

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
2500	**2**	**Samuel E. Leveritt, site RSO**	**417-831-5190**

[ ] Main Office Inspection — Next Inspection Date: **Normal: 12/15/2006**

[X] Field Office **3040 East Elm Street, Springfield, Missouri**

[ ] Temporary Job Site

PROGRAM SCOPE

This facility was a nuclear pharmacy located in Springfield, Missouri. Licensee staff consisted of three pharmacists, two technologists, and five drivers. The pharmacy manufactured and distributed approximately 200-250 unit doses and bulk technetium-99m vials daily Monday through Friday. Most of the unit doses were technetium-99m compounds, with occasional thallium-201, gallium-67, yttrium-90, and indium-111 doses. Licensee operated two shifts from around 1:00 AM until 4:30 PM on weekdays, with limited hours on weekends. The first run started at 3:30 AM and the second at 8:00 AM, with additional runs as needed throughout the day. The pharmacy received three 3-Curie technetium-99m generators weekly, delivered Mondays, Tuesdays, and Thursdays. Licensee compounded iodine-131 and iodine-123 capsules in a dedicated hood. Licensee received and redistributed xenon-133 vials. The licensee's corporate office performed independent safety audits on the radiation safety program three times annually. Licensee had addressed all concerns raised by these audits.

Performance Observations

During this inspection, the inspector observed generator milking and molybdenum test procedures, kit preparation and quality assurance, dose preparations, iodine-131 compounding, dose packaging, package surveys, dose calibrator constancy, survey meter tests, package transport, shipping paper preparation, package transport, returned package receipt, personnel bioassays, and daily surveys of radiation use areas. No issues were identified with these practices. Interviews with licensee staff indicated adequate knowledge of radiation safety procedures and policies. Surveys indicated radiation levels consistent with licensee records and postings.

The inspector closed a violation from the previous inspection regarding leak tests of sealed sources. Licensee had previously failed to leak test reference sources. The leak tests on those sources were current, and had been done consistently since the previous inspection.